ThinkPad T450 Platform Specifications

Processor	4th Generation Intel® Core™ i3 / i5 or 5th Generation Intel Core i3 / i5 / i7 Processor										
		# of Threads	Base Frequency		Cache	Memory Speed	Processor Graphics	Media reader Ports	4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 3.0 (one Always On), VGA, Mini DisplayPort, Ethernet (RJ-45), Dock connector (integrated models only)		
	i3-4030U i5-4300U i3-5010U		1.9 GHz 1.9 GHz 2.1 GHz	2.9 GHz	3MB		Intel HD Graphics 4400	Camera Audio support	HD720p resolution, low light sensitive, fixed focus HD Audio, Realtek® ALC3232 codec / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack		
	i5-5200U 2 i5-5300U i7-5500U	4	2.2 GHz 2.3 GHz 2.4 GHz	2.7 GHz 2.9 GHz 3 GHz		DDR3L-1600	Intel HD Graphics 5500	Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and buttonless Mylar surface touchpad, multi-touch		
	i7-5600U		2.6 GHz	3.2 GHz	4MB			Security Security chip	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Graphics	Intel HD Graphics 4400 or 5500 in processor, supports external analog monitor via VGA and digital monitor via Mini DisplayPort; supports three independent displays:							ThinkEngine	Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures Intel vPro Technology of Coptional: Fingerprint reader on the keyboard bezel, swipe sensor		
Chipset Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity.							Internal battery External battery Max battery life ¹⁰	Optional: Integrated Li-Ion or Li-Polymer 3-cell (23Wh) Li-Ion 3-cell (23Wh) or 6-cell (48Wh or 72Wh) Models 3-cell + 3-cell 3-cell + 6-cell 48Wh 3-cell + 6-cell 72Wh		
Display	Some: 14.0" (355mm) HD (1366x768), anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 350:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900), anti-glare, LED backlight,							AC adapter	Battery life 10.08 hr 14.78 hr 19.78 hr 45W AC adapter, 65W Slim AC adapter, or 65W AC adapter		
Multi-touch (opt)	250 nits, 16:9 aspect ratio, 400:1 contrast ratio Capacitive-type multi-touch, supports 10-finger gesture, 212.5 nits						i	Preload	Preload Windows® 7 Professional 64 Some: Windows 8.1 64-bit preinstalled through downgrade rights in Windows 8.1 Pro 64-bit • Lenovo Solution Center		
Storage	Some: SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™ Some: SSHD with 8GB NAND flash memory								 Lenovo Solution Center Lenovo SHAREit Lenovo Companion ThinkVantage Product Recovery Rescue and Recovery[™] ThinkVantage System Update PC Device Stage Norton Studio Microsoft Office preloaded; 		
M.2 SSD (opt) Optical	Single-sided M.2 SSD, via M.2 card slot None										
Ethernet Bluetooth™	Non-vPro model: Intel Ethernet Connection I218-V (Clarkville) vPro model: Intel Ethernet Connection I218-LM (Clarkville) Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter							 Adobe® Reader® Microsoft® Office preloaded; purchase a product key to activate Norton Internet Security (30 days of virus definitions) 			
WLAN ⁴	One of the following, configurable by model:								 Norton™ Internet Security (30 days of virus definitions) 		
	 11b/g/n, ThinkPad 11b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter, M.2 card 11ac, Intel Dual Band Wireless-AC 7265, 2x2, Wi-Fi + BT adapter, M.2 card 						er, M.2 card er, M.2 card	Limited warranty ¹² One of the following, configurable by model:			
WWAN (optional)	I) One of the following, configurable by model: Wireless WAN upgradable Wireless WAN, Sierra Wireless EM7345, Intel 4G LTE/HSPA/GSM/GPRS/EDGE, GPS, M.2 card								 1-year depot repair service 3-year/1-yr battery depot repair service 3-year/1-yr battery limited onsite service²⁴ 3-year/1-yr battery limited onsite service, IWS (International Warranty Service¹⁷) 		
SIM card (opt)	AT&T® or Verizon® LTE (4G), contract required with service provider						er	Mil-Spec test	MIL-STD-810G military certification.		
Dimensions ³	14.0" (WxDxH): 13.35" x 9.15" x 0.83"; 339mm x 232.5mm x 21mm 14.0" Touch (WxDxH): 13.35" x 9.15" x 0.91"; 339mm x 232.5mm x 23mm							Environment EPEAT™ Gold (US) or EPEAT Silver (WE); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant			
Weight ²	Models Non-touch Multi-touch		No + 3-cell 3.58 lb / 1.63	kg 3.8	3- <i>cell + 3</i> 31 lb / 1.	73 kg 4	3-cell + 6-cell .21 lb / 1.91 kg .52 lb / 2.05 kg				
Case material	Multi-touch 3.89 lb / 1.76 kg 4.11 lb / 1.87 kg 4.52 lb / 2.05 kg Display cover: Glass-Fiber Reinforced Plastic (non-touch model) or Carbon-Fiber Reinforced Plastic (multi-touch model); Bottom: Glass-Fiber Reinforced Plastic						or				